

Developing Biological Objectives for California Streams and Rivers

Update to CABW
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Overview

- Define Biological Objectives
- Describe Need for Biological Objectives
- Describe Process & Schedule for Developing Biological Objectives



What are biological objectives?

Water Quality Standards

Beneficial Uses
Aquatic Life

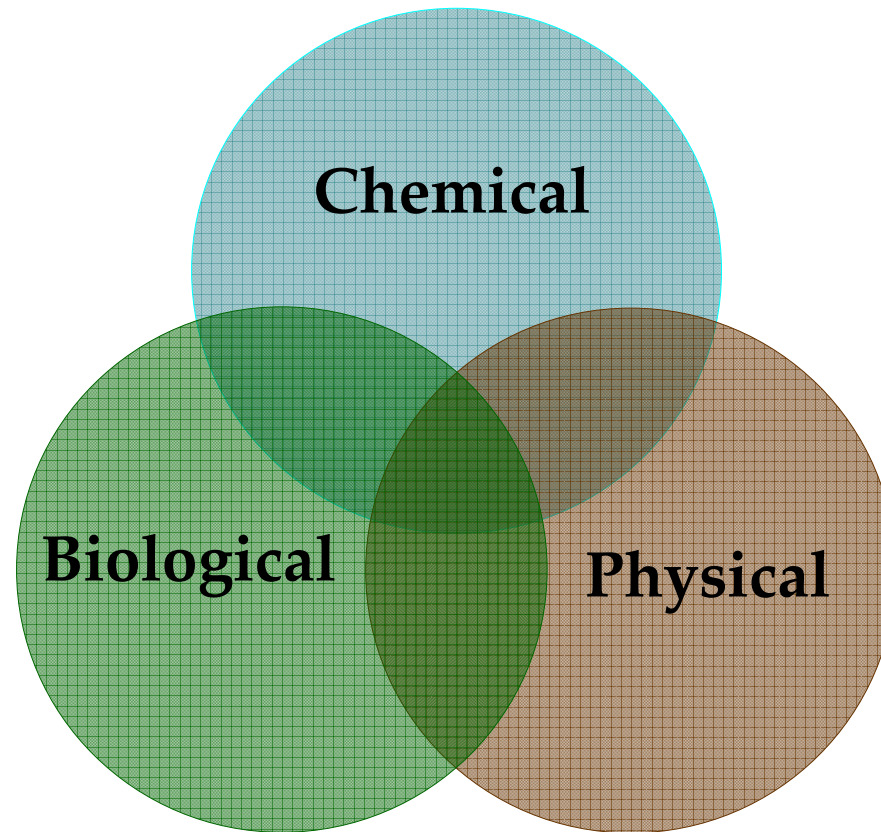
Water Quality Objectives
Biological Objectives

Antidegradation

Implementation
305(b), 303(d), Permitting

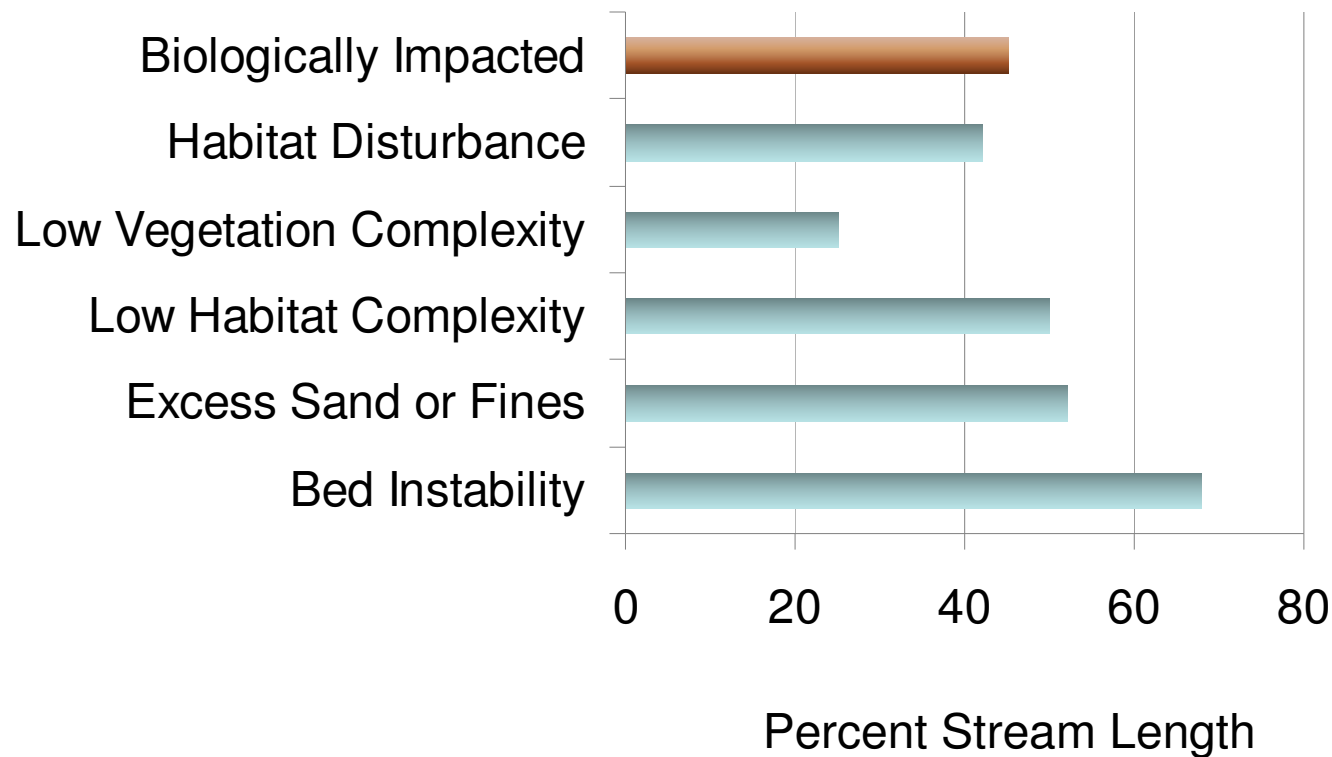


Why biological objectives?



Why biological objectives?

Stressor Extent from Perennial Stream Survey



Why biological objectives?

- Without biological objectives:
 - We cannot assess whether aquatic life beneficial uses are supported.
 - We cannot determine whether chemical criteria are sufficient to protect aquatic life.
 - Our methods for identifying impaired waterbodies is inconsistent.
 - Developing biological targets on a project-by-project basis is expensive.



Policy Goals

- Establish policy for identifying and protecting high quality streams (anti-degradation).
- Develop objectives for identifying impaired streams.
- Establish realistic expectations by stream-type.
- Institute policy with statewide consistency AND regional flexibility.



Technical Infrastructure

Indicators
Assemblages
Physical Habitat

Methods
Field & Lab

Reference
Condition

Quality Assurance

Data Management

Interpretation

Narrative
Objectives

Implementation

Numeric
Endpoints

Regulatory Framework

Regulatory Programs

Permitting

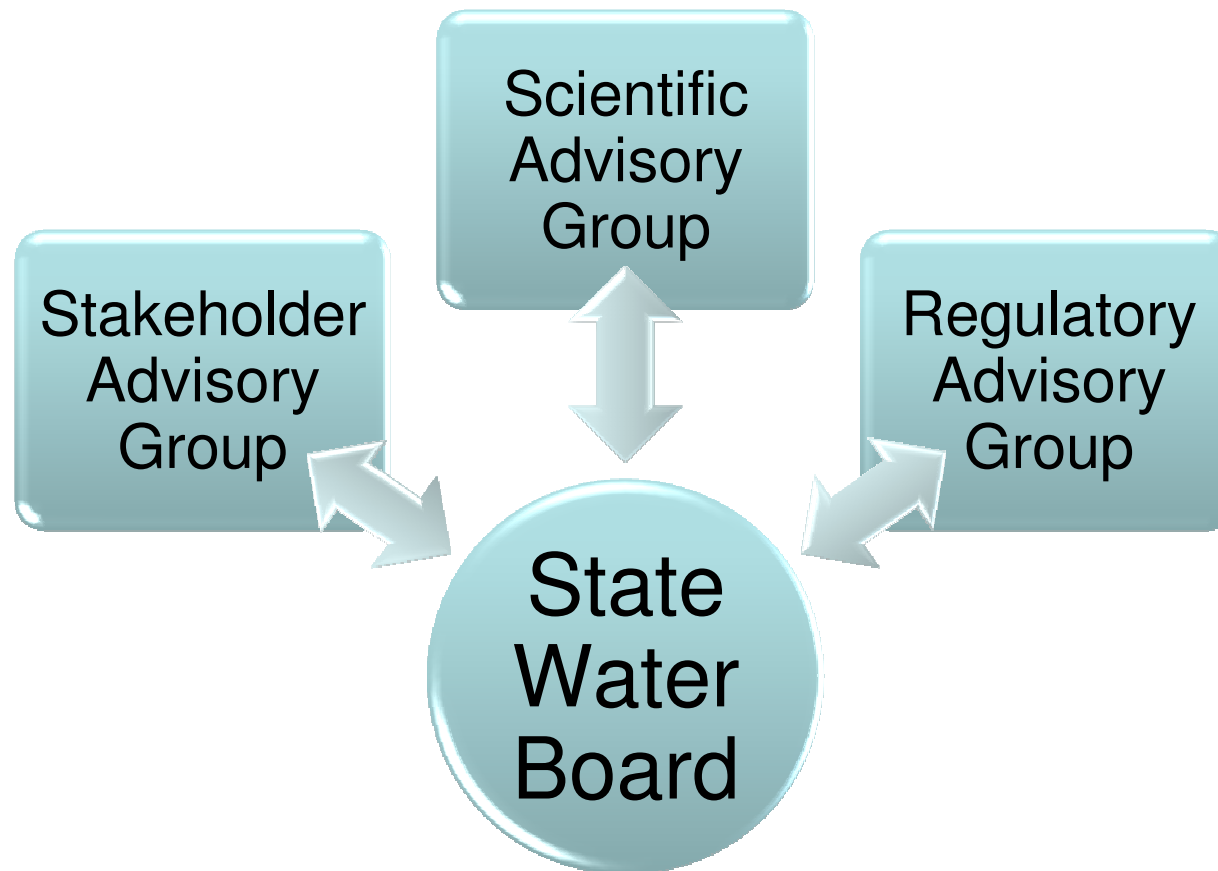
303(d)/TMDL

305(b) Assmt

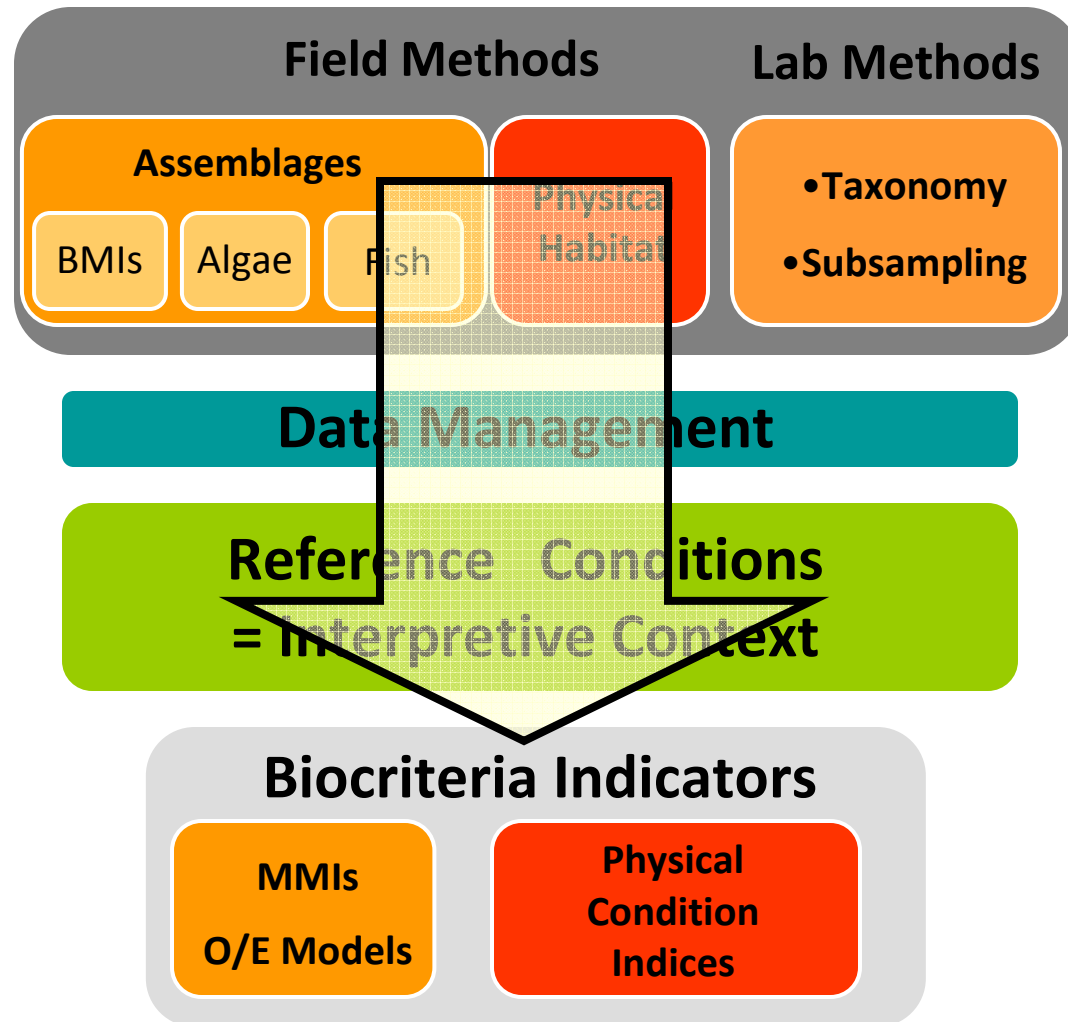
401 Cert

BMP Efficacy

Collaboration and Participation

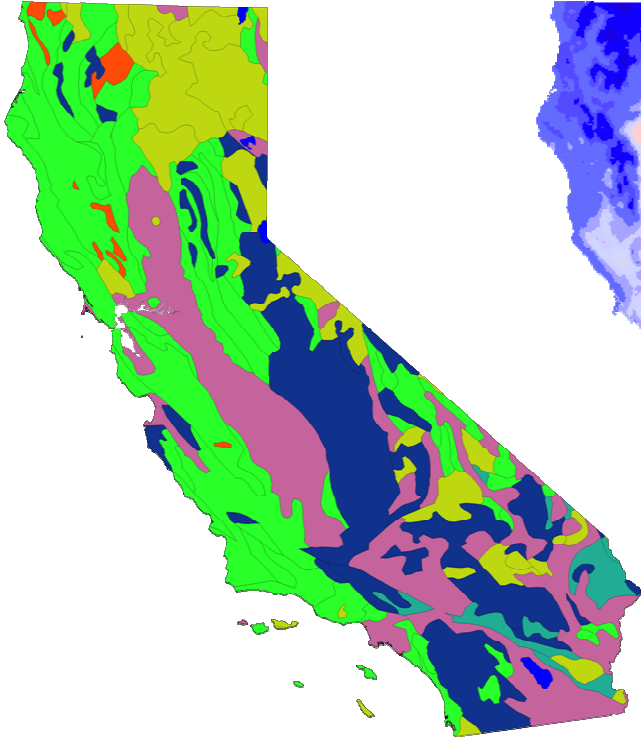


Reference Condition

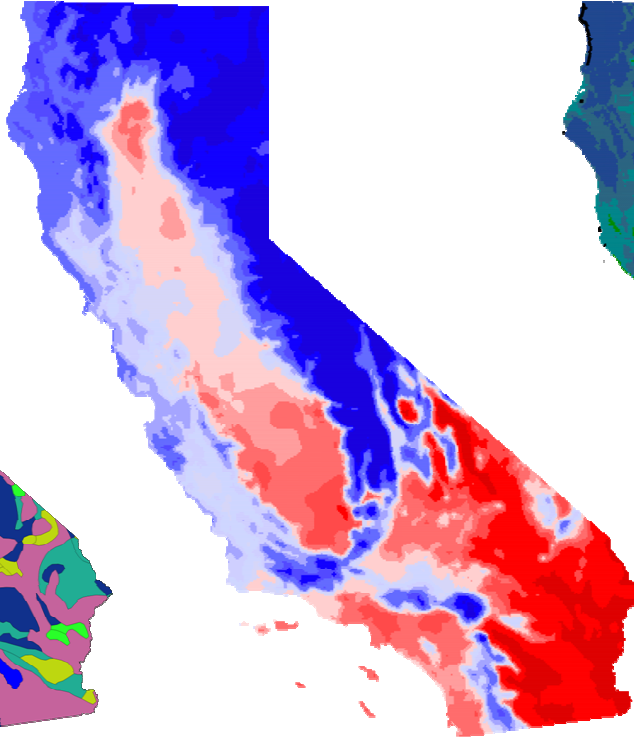


Reference Condition

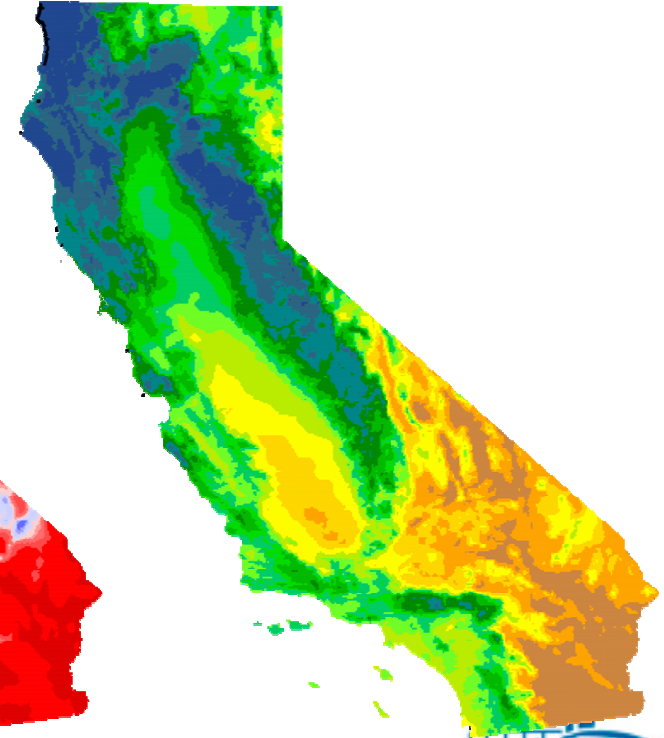
Geology



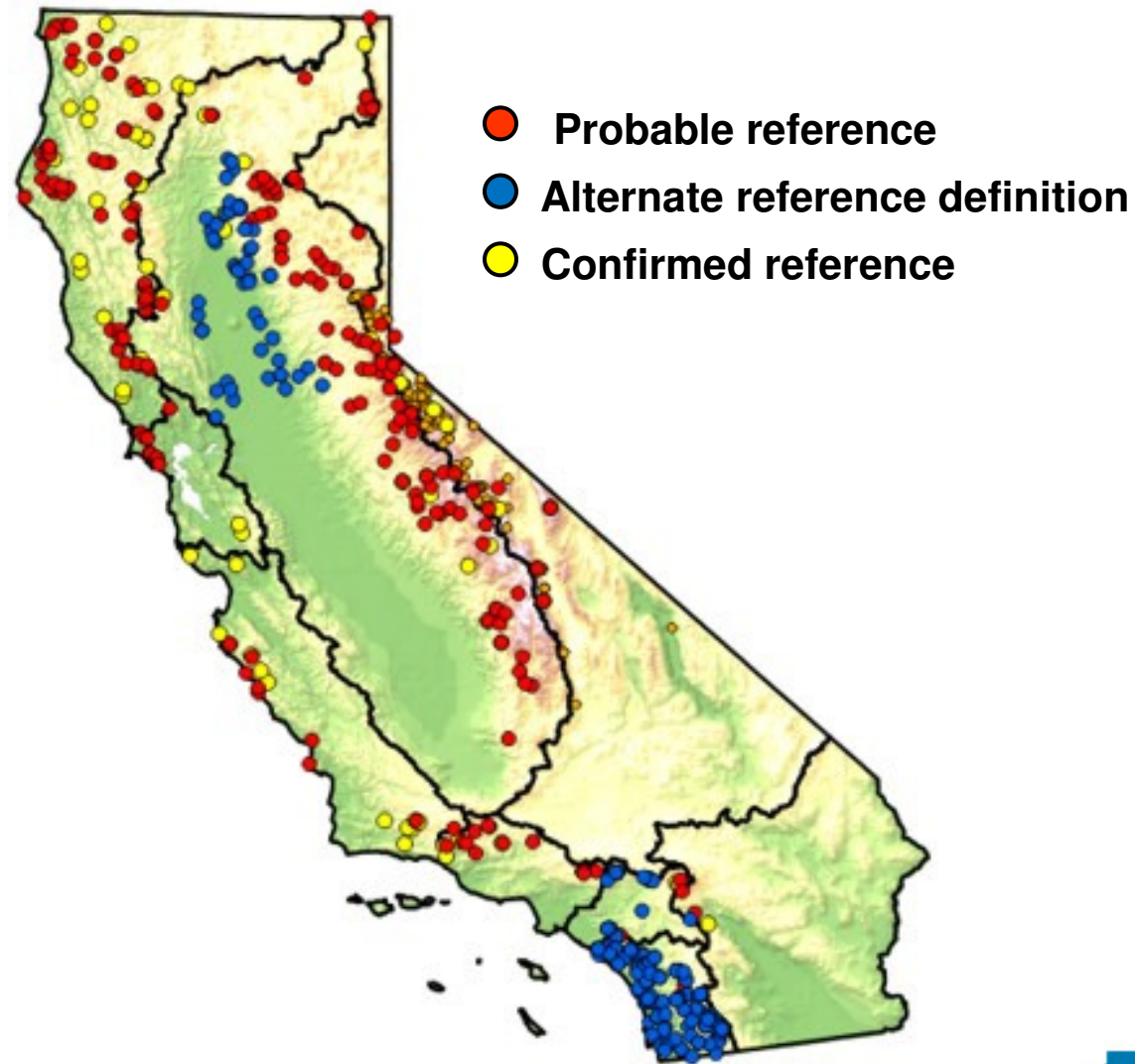
Temperature



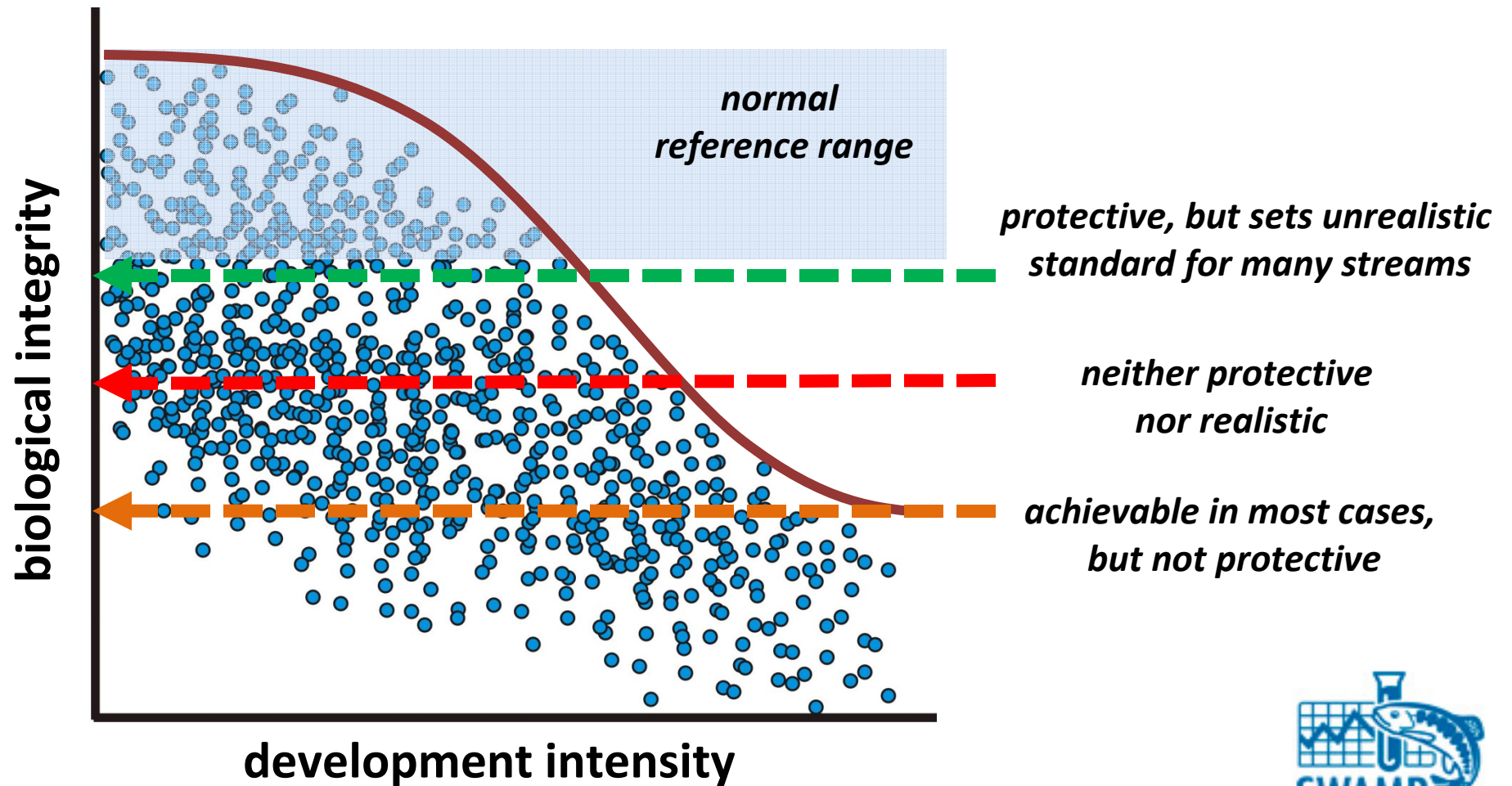
Precipitation



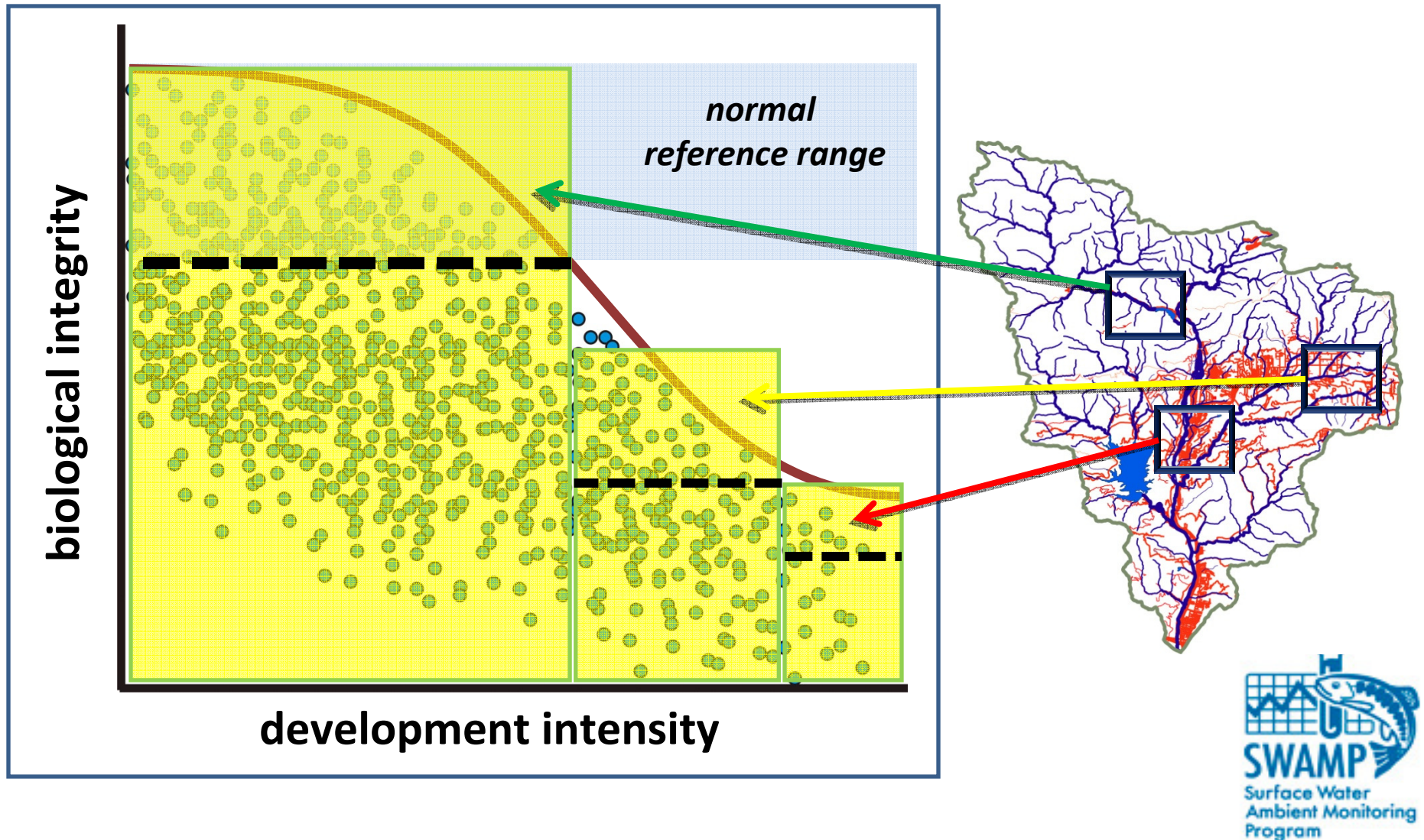
Reference Condition



Identify Waterbody Expectations

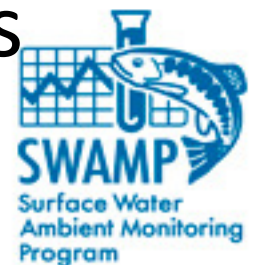


Identify Waterbody Expectations



Stressor Identification

- Need to determine site-specific explanations when objectives are not met
- Multiple approaches exist but have not been vetted in California
 - Correlation, Relative risk, Tolerance values, Mechanistic
- Goal is to provide recommendations for future use



Schedule

- Project Kick-off Meeting – *March 2010*
- Established Stakeholder Advisory Group
 - Held first meeting – *May 2010*
 - Scheduled second meeting – *November 2010*
- Established Scientific Advisory Group
 - Held first meeting – *October 2010*
- Establish Regulatory Advisory Group – *January 2011*
- Finalize reference condition, method standardization & information management – *March 2011*
- Waterbody classification – *March 2012*
- Scientific Advisory Group review of Technical Reports – *June 2012*
- Stakeholder Advisory Group review of Technical Reports – *September 2012*
- Final Technical Reports to State Water Board – *December 2012*



Contacts

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